

§ 77.303

bypass the heating chamber and vent to the outside atmosphere during any shutdown operation.

§ 77.303 Hot gas inlet chamber dropout doors.

Thermal dryer systems which employ a hot gas inlet chamber shall be equipped with drop-out doors at the bottom of the inlet chamber or with other effective means which permit coal, fly-ash, or other heated material to fall from the chamber.

§ 77.304 Explosion release vents.

Drying chambers, dry-dust collectors, ductwork connecting dryers to dust collectors, and ductwork between dust collectors and discharge stacks shall be protected with explosion release vents which open directly to the outside atmosphere, and all such vents shall be:

- (a) Hinged to prevent dislodgment;
- (b) Designed and constructed to permit checking and testing by manual operation; and
- (c) Equal in size to the cross-sectional area of the collector vortex finder when used to vent dry dust collectors.

§ 77.305 Access to drying chambers, hot gas inlet chambers and ductwork; installation and maintenance.

Drying chambers, hot gas inlet chambers and all ductwork in which coal dust may accumulate shall be equipped with tight sealing access doors which shall remain latched during dryer operation to prevent the emission of coal dust and the loss of fluidizing air.

§ 77.306 Fire protection.

Based on the need for fire protection measures in connection with the particular design of the thermal dryer, an authorized representative of the Secretary may require any of the following measures to be employed:

- (a) Water sprays automatically actuated by rises in temperature to prevent fire, installed inside the thermal dryer systems, and such sprays shall be designed to provide for manual operation in the event of power failure.
- (b) Fog nozzles, or other no less effective means, installed inside the thermal dryer systems to provide addi-

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tional moisture or an artificial drying load within the drying system when the system is being started or shutdown.

- (c) The water system of each thermal dryer shall be interconnected to a supply of compressed air which permits constant or frequent purging of all water sprays and fog nozzles or other no less effective means of purging shall be provided.

§ 77.307 Thermal dryers; location and installation; general.

(a) Thermal dryer systems erected or installed at any coal mine after June 30, 1971 shall be located at least 100 feet from any underground coal mine opening, and 100 feet from any surface installation where the heat, sparks, flames, or coal dust from the system might cause a fire or explosion.

(b) Thermal dryer systems erected or installed after June 30, 1971 may be covered by roofs, however, such systems shall not be otherwise enclosed unless necessary to protect the health and safety of persons employed at the mine. Where such systems are enclosed, they shall be located in separate fireproof structures of heavy construction with explosion pressure release devices (such as hinged wall panels, window sashes, or louvers); which provide at least 1 square foot of area for each 80 cubic feet of space volume and which are distributed as uniformly as possible throughout the structure.

§ 77.308 Structures housing other facilities; use of partitions.

Thermal dryer systems installed after June 30, 1971 in any structure which also houses a tippie, cleaning plant, or other operating facility shall be separated from all other working areas of such structure by a substantial partition capable of providing greater resistance to explosion pressures than the exterior wall or walls of the structure. The partition shall also include substantial, self-closing fire doors at all entrances to the areas adjoining the dryer system.

§ 77.309 Visual check of system equipment.

Frequent visual checks shall be made by the operator of the thermal dryer